Energy Distribution - Cosmics

Shaun Krueger
University of Regina
April 24, 2014

Energy – Slope Correction

- Each event is adjusted based on its path through the module

- Left: Uncorrected energy distribution

- Right: Corrected energy distribution

- Distribution from module 12
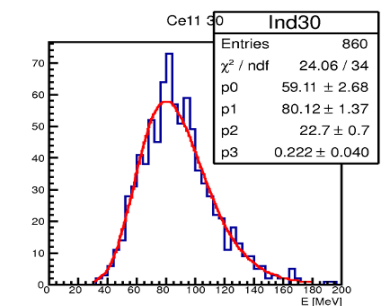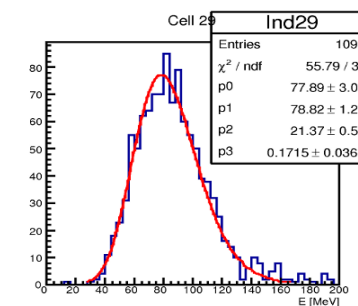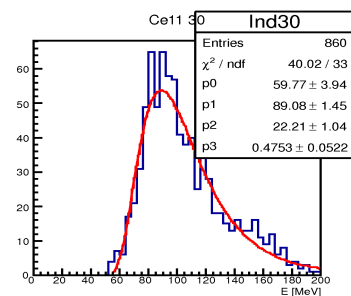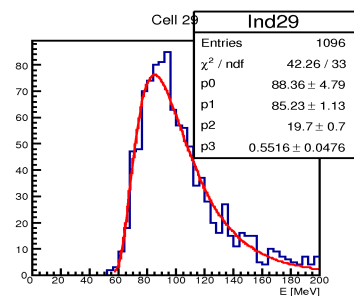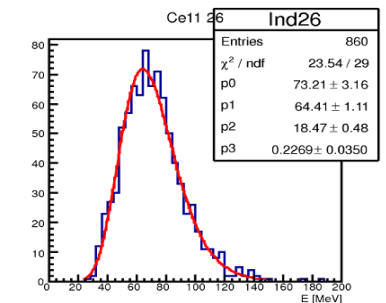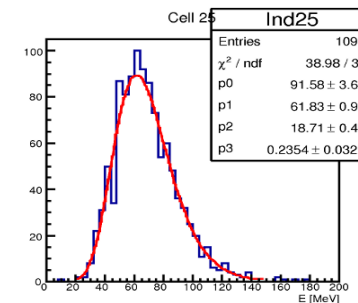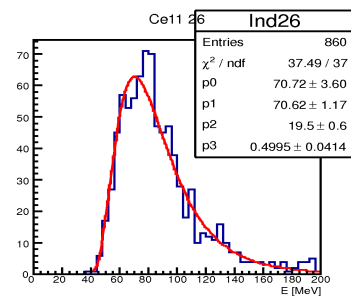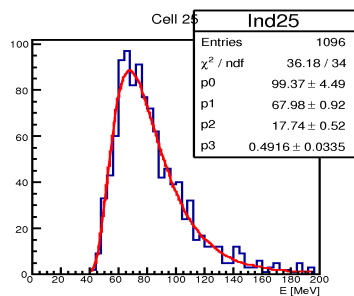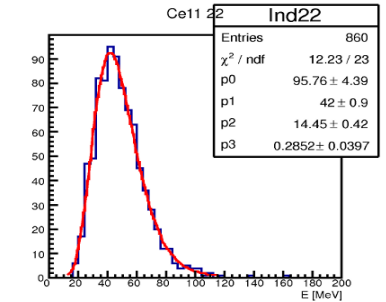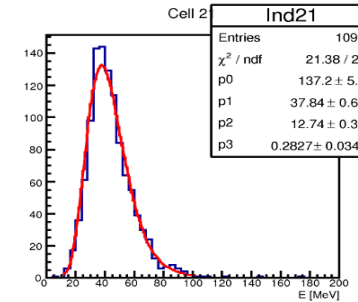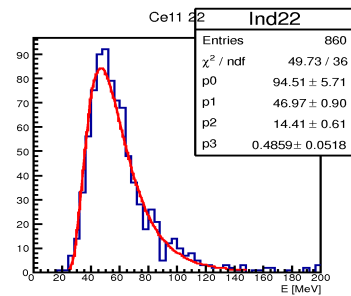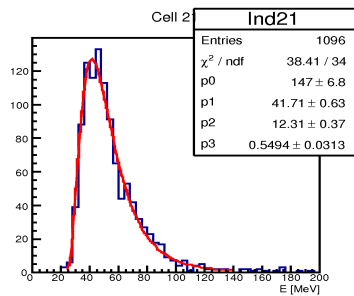
Energy - Histogram

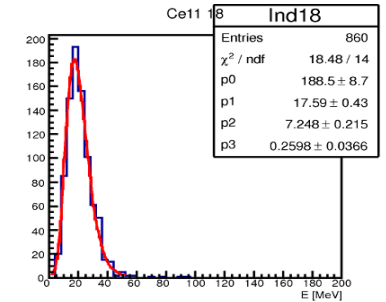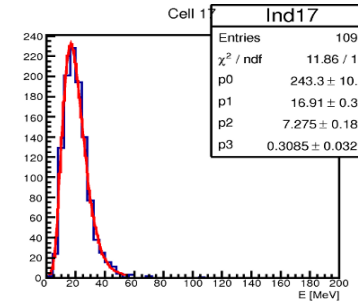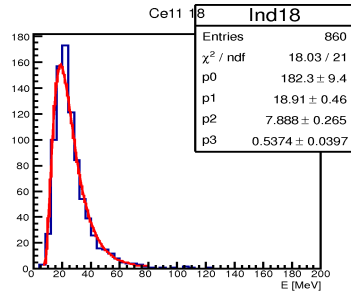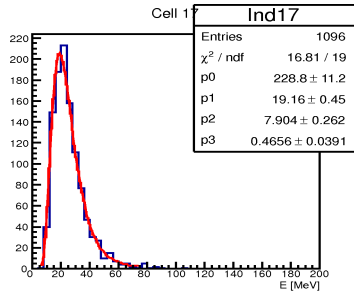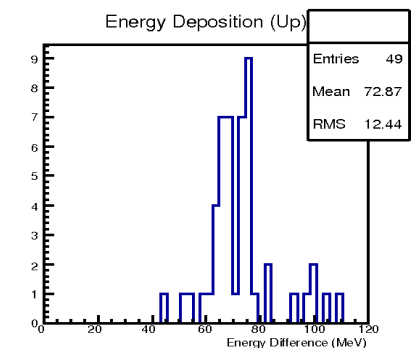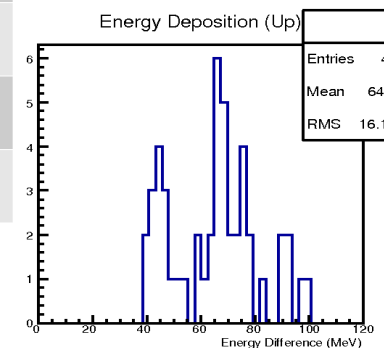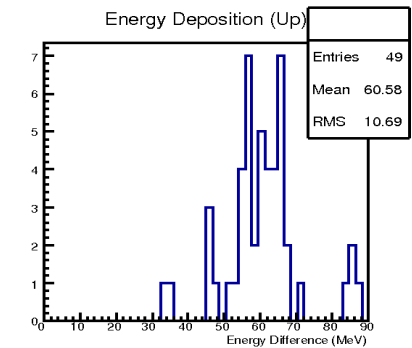- Histogram using the mean for each cell of every module.

- Each entry represents one module
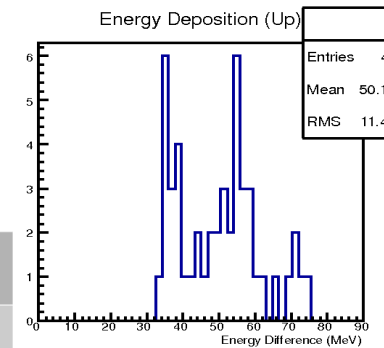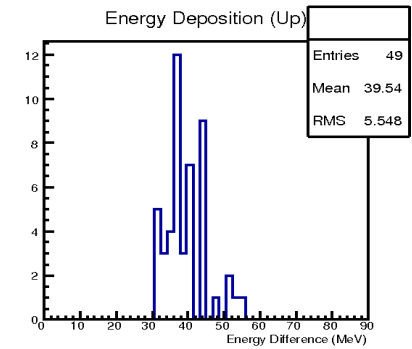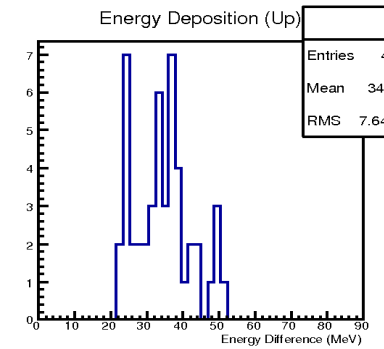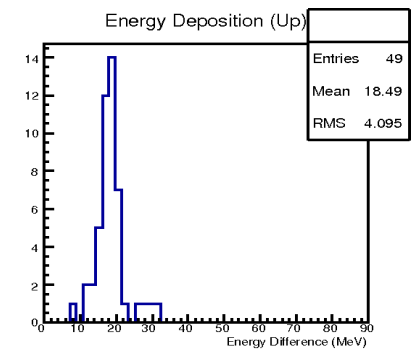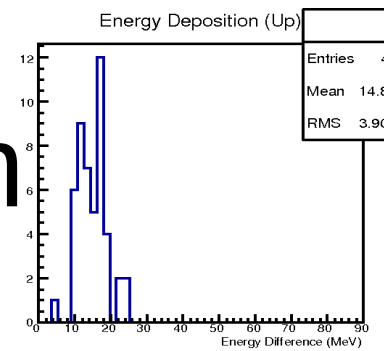
Energy (MeV)	Expected(MeV)	Percentage (%)
16.7	22	76
36.9	45	82
55.4	69	80
68.7	109	63

3

Energy – Up/Down

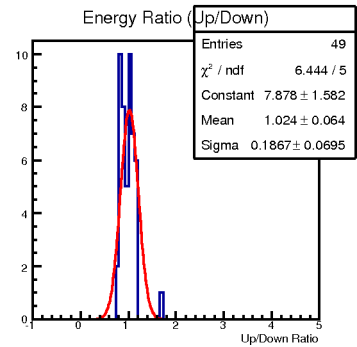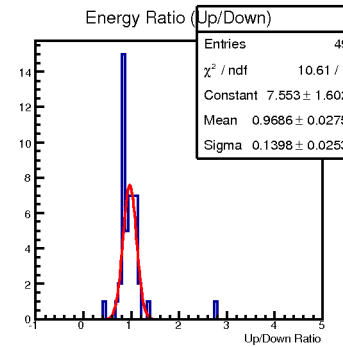- Determine the ratio of up/down for energy distribution for each module
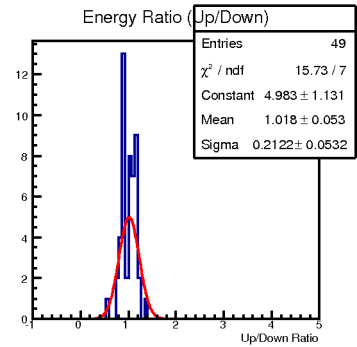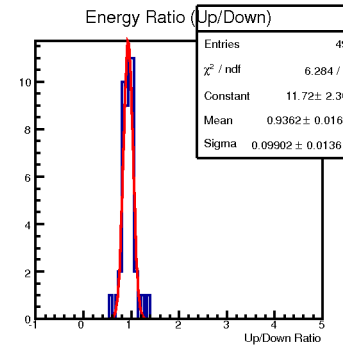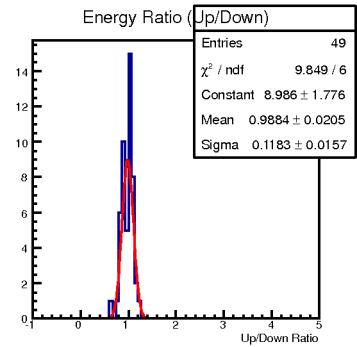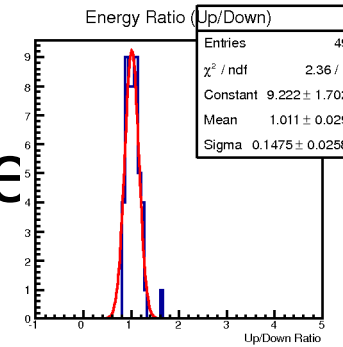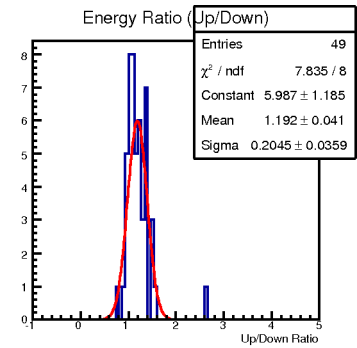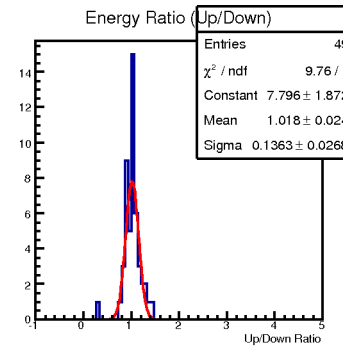
Row	Mean	Sigma
1	1.11	0.13
2	1.00	0.11
3	0.98	0.14
4	1.00	0.12

Energy - Ratios

- The ratios of the various cells are made for the upstream side of all modules

Cells	Ratio	Expected
2/1	2.2	2.0
3/1	3.4	3.0
4/1	4	4.0
3/2	1.5	1.5
4/2	1.8	2.0
4/3	1.2	1.3